

CLAIM AMENDMENTS

1. (Currently amended) A computer-readable medium having computer-executable components for acquiring color images using an image-capturing device for use by an application, comprising:

a color management component of an operating system having color management functions ~~callable~~ for performing color management operations;

an image acquisition interface for calling by the application to set image acquisition control parameters in an image acquisition control data structure, said image acquisition control parameters including a color management parameter indicating whether color management is required;

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a device driver ~~for controlling the image-capturing device to perform image capturing operations and receiving color image data from the image capturing device, the device driver setting operation parameters for the image capturing device in response to a device setup request, the operation parameters including a color management parameter indicating whether color management is required,~~ the device driver ~~further~~ controlling the image-capturing device to start an image-capturing operation according to the color acquisition control parameters in response to a data acquisition request by the application, receiving color image data for a captured image from the image-capturing device, and invoking ~~calling~~ a color management function of the color management component to operate on the color image data of the captured image when the color management parameter is set to indicate that color management is required;

a color management application programming interface for calling by the device driver to invoke color management functions of the color management component; and

an image acquisition service module operating between the image-processing application and the device driver to deliver requests by the application to the device driver and forwarding color image data from the device driver to the application.

2. (Canceled) A computer-readable medium as in claim 1, wherein the color management component is a component of an operating system.

3. (Original) A computer-readable medium as in claim 1, wherein the color management function called by the device driver performs a color space conversion that converts the color image data from a color space of the image-capturing device to a destination color space.

4. (Original) A computer-readable medium as in claim 3, wherein the destination color space has a substantially linear gamma with respect to uniform human perception.

5. (Original) A computer-readable medium as in claim 4, wherein the destination color space is the sRGB color space.

6. (Original) A computer-readable medium as in claim 3, wherein the destination color space has a substantially linear gamma with respect to luminance.

7. (Original) A computer-readable medium as in claim 6, wherein the destination color space is the scRGB color space.

8. (Original) A computer-readable medium as in claim 3, wherein the color space conversion is based on a color profile of the image-capturing device.

9. (Original) A computer-readable medium as in claim 8, wherein the color space conversion includes embedding a destination profile of the destination color space in the converted color image data.

10. (Original) A computer-readable medium as in claim 8, wherein the color profile of the image-capturing device is identified as one of the operation parameters of the image-capturing device.

11. (Original) A computer-readable medium as in claim 1, wherein the device driver forwards the color image data received from the image-capturing device to the image-processing application without performing color management thereon when the color management parameter is set to indicate that no color management is required.

12. (Original) A computer-readable medium as in claim 11, wherein the color image data of the captured image has a source color profile embedded therein.

13. (Canceled) A computer-readable medium as in claim 1, further including an image acquisition service module operating between the image-processing application and the device driver to deliver requests by the application to the device driver and forwarding color image data from the device driver to the application.

14. (Currently Amended) A computer-readable medium having computer-executable instructions for performing steps by a device driver for controlling an image-capturing device for generating color image data for use by an application, the instructions operable to perform a process comprising the steps of:

checking image acquisition control parameters in an image acquisition control data structure,
said image acquisition control parameters being set by the application and setting operation parameters
of the image capturing device in response to a device set-up request, the operation parameters including
a color management parameter indicating whether color management is to be performed;

controlling the image-capturing device to perform an image-capturing operation according to the
image acquisition control parameters in response to an acquisition request by the application;

receiving from the image-capturing device color image data generated in the image-capturing operation;

calling a color management application programming interface to invoke a color management function of a color management component of an operating system to process the color image data

received from the image-capturing device when the color management parameter is set to indicate that color management is to be performed; and

forwarding the processed color image data to the application via an image acquisition service module, the image acquisition service module operating between the application and the device driver to deliver requests by the application to the device driver and forwarding color image data from the device driver to the application.

15. (Canceled) A computer-readable medium as in claim 14, wherein the color management component is a component of an operating system.

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16. (Currently Amended) A computer-readable medium as in claim ~~15~~ 14, wherein the called color management function performs a color space conversion that converts the color image data from a color space of the image-capturing device to a destination color space.

17. (Original) A computer-readable medium as in claim 16, wherein the destination color space has a substantially linear gamma with respect to uniform human perception.

18. (Original) A computer-readable medium as in claim 17, wherein the destination color space is the sRGB color space.

19. (Original) A computer-readable medium as in claim 16, wherein the destination color space has a substantially linear gamma with respect to luminance.

20. (Original) A computer-readable medium as in claim 19, wherein the destination color space is the scRGB color space.

21. (Original) A computer-readable medium as in claim 16, wherein the color space conversion is based on a color profile of the image-capturing device.

22. (Original) A computer-readable medium as in claim 20, wherein the color profile of the image-capturing device is identified as one of the operation parameters of the image-capturing device.

23. (Original) A computer-readable medium as in claim 14, having further computer-executable instructions for performing the step of forwarding the color image data received from the image-capturing device to the image-processing application without performing color management thereon when the color management parameter is set to indicate that no color management is required.

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24. (Currently amended) A computer system comprising:
an image-capturing device;
a color management component of an operating system having color management functions ~~callable~~ for performing color management operations;

an image acquisition interface for calling by an application to set image acquisition control parameters in an image acquisition control data structure, said image acquisition control parameters including a color management parameter indicating whether color management is required;

a device driver for controlling the image-capturing device ~~to perform image-capturing operations and receiving color image data from the image-capturing device, the device driver setting operation parameters for the image-capturing device in response to a device setup request, the operation parameters including a color management parameter indicating whether color management is required,~~ the device driver ~~further~~ controlling the image-capturing device to start an image-capturing operation according to the image acquisition control parameters in response to a data acquisition request by the application, receiving color image data for a captured image from the image-capturing device, and invoking a color management function of the color management component to process the color image

data of the captured image when the color management parameter is set to indicate that color management is required;

a color management application programming interface for calling by the device driver to invoke color management functions of the color management component of the operating system; and

an image acquisition service operating between the image-processing application and the device driver to deliver requests by the application to the device driver and forwarding color image data from the device driver to the application.

25. (Canceled) A computer system as in claim 24, wherein the color management component is a component of an operating system.

26. (Original) A computer system as in claim 24, wherein the color management function called by the device driver performs a color space conversion that converts the color image data from a color space of the image-capturing device to a destination color space.

27. (Original) A computer system as in claim 26, wherein the color space conversion is based on a color profile of the image-capturing device, and wherein the color profile of the image-capturing device is identified as one of the operation parameters of the image-capturing device.

28. (Original) A computer system as in claim 24, wherein the device driver is programmed to forward the color image data received from the image-capturing device to the image-processing application without performing color management thereon when the color management parameter is set to indicate that no color management is required.

29. (Currently amended) A method of controlling an image-capturing device for generating color image data for use by an application, comprising the steps of:

checking image acquisition control parameters in an image acquisition control data structure,
said image acquisition control parameters being set by the application and ~~setting operation parameters~~
~~of the image capturing device in response to a device set-up request, the operation parameters~~ including
a color management parameter indicating whether color management is to be performed;

controlling the image-capturing device to perform an image-capturing operation according to the
image acquisition control parameters in response to an acquisition request by the application;

receiving from the image-capturing device color image data generated in the image-capturing
operation;

calling a color management application programming interface to invoke a color management
function of a color management component to process the color image data received from the image-
capturing device when the color management parameter is set to indicate that color management is to be
performed, and

forwarding the processed color image data to the application via an image acquisition service
module, the image acquisition service module operating between the application and the device driver to
deliver requests by the application to the device driver and forwarding color image data from the device
driver to the application.

30. (Canceled) A method as in claim 29, wherein the color management is a component of an
operating system.

31. (Original) A method as in claim 29, wherein the called color management function performs
a color space conversion that converts the color image data from a color space of the image-capturing
device to a destination color space.

32. (Original) A method as in claim 31, wherein the color space conversion is based on a color
profile of the image-capturing device, and wherein the color profile of the image-capturing device is
identified as one of the operation parameters of the image-capturing device.

33. (Original) A method as in claim 29, including the step of forwarding the color image data received from the image-capturing device to the image-processing application without performing color management thereon when the color management parameter is set to indicate that no color management is required.

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